STATUS OF THE GYPSY MOTH INFESTATION ON THE ALLEGHENY NATIONAL FOREST

April 4, 1988

History

Gypsy moths first reached epidemic populations in the southern end of the Allegheny National Forest in 1984 and have since spread north and west throughout susceptible host vegetation types (primarily oak) on the rest of the Forest. Spraying to protect high value timber, recreation, and wildlife areas began in 1985 using both chemical pesticides (dimilin on 9,000 acres) and biologic pesticides (bacillus thuringiensis on 1500 acres). Since 1985 the Allegheny National Forest has applied only the biologic pesticide bacillus thuringiensis (b.t.). The following chart displays the history of moderate/severe defoliation and the history of gypsy moth spray treatment on the Forest.

History of Moderate/Severe Defoliation and Spray Treatment

	1984	1985	1986	1987
Moderate/severe defoliation (acres)	1,300	6,700	78,100	115,600
Spray Treatment (acres)	0	10,500	0	29,500

1988 Status

Though gypsy moths are spread across the entire Forest, the population suffered a general collapse following the heavy defoliation which occurred during the spring of 1987. About 10,000 acres of the Forest have egg mass counts which are high enough to produce at least moderate defoliation in the spring of 1988. Spraying with B.t. on 6100 acres this spring will concentrate on protecting areas having high timber, wildlife, or recreation values where there is the threat of at least moderate defoliation.

We anticipate that moderate to heavy gypsy moth defoliation will have several impacts on the Forest's ability to produce Forest Plan outputs. It may affect our ability to retain oak as well as our ability to produce timber volumes. Two to three years of heavy defoliation can result in significant tree mortality. First, if oak regeneration is not present, heavy mortality can result in conversion to another forest type. As we prepared the Forest Plan, the public overwhelmingly responded that they wanted the Forest to maintain the oak timber type. Secondly, heavy defoliation and resulting mortality can have a significant effect on timber volume outputs. If thinning occurs within 5 years (before or after) of heavy defoliation, tree mortality may be double that which occurs in an unthinned stand. The Forest Plan called for a large amount of thinning in oak stands which in many cases will have to be deferred. We may need to adjust Forest Plan timber volume outputs to account for this.

Gypsy moth populations typically follow a cycle of 3 to 5 years of buildup followed by a collapse and then 2 to 5 years of lower populations. Populations will then begin to build again, and the cycle begins once more. The collapse occurred here last year, and the next buildup could begin within two years, depending on how the gypsy moth responds to local environmental conditions.